

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/728,420B  
Source: IFWP  
Date Processed by STIC: 11/1/04

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 11/01/2004

PATENT APPLICATION: US/10/728,420B

TIME: 12:15:41

Input Set : D:\Sequence Listing 015181-1 US rev 09-14-04.txt

Output Set: N:\CRF4\11012004\J728420B.raw

```

4 <110> APPLICANT: WOULFE, SUSAN L.
5     JAIN, RITA
6     BURR, AIMEE
8 <120> TITLE OF INVENTION: ENGINEERED FAB' FRAGMENT ANTI-TUMOR
9     NECROSIS FACTOR ALPHA IN COMBINATION WITH DISEASE MODIFYING
10    ANTI-RHEUMATIC DRUGS
12 <130> FILE REFERENCE: 122294-1010
14 <140> CURRENT APPLICATION NUMBER: US/10/728,420B
16 <141> CURRENT FILING DATE: 2003-12-05
18 <150> PRIOR APPLICATION NUMBER: US 60/431,053
20 <151> PRIOR FILING DATE: 2002-12-05
22 <160> NUMBER OF SEQ ID NOS: 117
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 5
28 <212> TYPE: PRT
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRH1
34 <400> SEQUENCE: 1
35 Asp Tyr Gly Met Asn
36 1           5
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 17
41 <212> TYPE: PRT
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40/human hybrid CDRH2
47 <400> SEQUENCE: 2
48 Trp Ile Asn Thr Tyr Ile Gly Glu Pro Ile Tyr Ala Asp Ser Val Lys
49 1           5           10           15
50 Gly
53 <210> SEQ ID NO: 3
54 <211> LENGTH: 9
55 <212> TYPE: PRT
56 <213> ORGANISM: Artificial Sequence
58 <220> FEATURE:
59 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRH3
61 <400> SEQUENCE: 3
62 Gly Tyr Arg Ser Tyr Ala Met Asp Tyr
63 1           5
66 <210> SEQ ID NO: 4
67 <211> LENGTH: 11

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68 <212> TYPE: PRT
69 <213> ORGANISM: Artificial Sequence
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRL1
74 <400> SEQUENCE: 4
75 Lys Ala Ser Gln Asn Val Gly Thr Asn Val Ala
76 1          5          10
79 <210> SEQ ID NO: 5
80 <211> LENGTH: 7
81 <212> TYPE: PRT
82 <213> ORGANISM: Artificial Sequence
84 <220> FEATURE:
85 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRL2
87 <400> SEQUENCE: 5
88 Ser Ala Ser Phe Leu Tyr Ser
89 1          5
92 <210> SEQ ID NO: 6
93 <211> LENGTH: 9
94 <212> TYPE: PRT
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRL3
100 <400> SEQUENCE: 6
101 Gln Gln Tyr Asn Ile Tyr Pro Leu Thr
102 1          5
105 <210> SEQ ID NO: 7
106 <211> LENGTH: 17
107 <212> TYPE: PRT
109 <213> ORGANISM: Artificial Sequence
111 <220> FEATURE:
112 <223> OTHER INFORMATION: Mouse monoclonal antibody hTNF40 CDRH2
114 <400> SEQUENCE: 7
115 Trp Ile Asn Thr Tyr Ile Gly Glu Pro Ile Tyr Val Asp Asp Phe Lys
116 1          5          10          15
117 Gly
120 <210> SEQ ID NO: 8
121 <211> LENGTH: 321
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence
125 <220> FEATURE:
126 <221> NAME/KEY: CDS
128 <222> LOCATION: (1)...(321)
129 <223> OTHER INFORMATION: Synthetic hTNF40-gL1
131 <400> SEQUENCE: 8
132 gac att caa atg acc cag agc cca tcc agc ctg agc gca tct gta gga 48
133 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
134 1          5          10          15
136 gac cgg gtc acc atc act tgt aaa gcc agt cag aac gta ggt act aac 96
137 Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asn Val Gly Thr Asn

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138          20          25          30
140 gta gcc tgg tat cag caa aaa cca ggt aaa gcc cca aaa gcc ctc atc 144
141 Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Ala Leu Ile
142          35          40          45
144 tac agt gcc tct ttc ctc tat agt ggt gta cca tac agg ttc agc gga 192
145 Tyr Ser Ala Ser Phe Leu Tyr Ser Gly Val Pro Tyr Arg Phe Ser Gly
146          50          55          60
148 tcc ggt agt ggt act gat ttc acc ctc acg atc agt agc ctc cag cca 240
149 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
150 65          70          75          80
152 gaa gat ttc gcc act tat tac tgt caa cag tat aac atc tac cca ctc 288
153 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ile Tyr Pro Leu
154          85          90          95
156 aca ttc ggt cag ggt act aaa gta gaa atc aaa 321
157 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
158          100          105
161 <210> SEQ ID NO: 9
163 <400> SEQUENCE: 9
W--> 164 000
167 <210> SEQ ID NO: 10
169 <400> SEQUENCE: 10
W--> 170 000
173 <210> SEQ ID NO: 11
174 <211> LENGTH: 354
175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <221> NAME/KEY: CDS
180 <222> LOCATION: (1)...(354)
181 <223> OTHER INFORMATION: Grafted Heavy Chain for Modified Fab
183 <400> SEQUENCE: 11
184 gag gtt cag ctg gtc gag tca gga ggc ggt ctc gtg cag cct ggc gga 48
185 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
186 1          5          10          15
188 tca ctg aga ttg tcc tgt gct gca tct ggt tac gtc ttc aca gac tat 96
189 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Val Phe Thr Asp Tyr
190          20          25          30
192 gga atg aat tgg gtt aga cag gcc ccg gga aag ggc ctg gaa tgg atg 144
193 Gly Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
194          35          40          45
196 ggt tgg att aat act tac att gga gag cct att tat gct gac agc gtc 192
197 Gly Trp Ile Asn Thr Tyr Ile Gly Glu Pro Ile Tyr Ala Asp Ser Val
198          50          55          60
200 aag ggc aga ttc acg ttc tct cta gac aca tcc aag tca aca gca tac 240
201 Lys Gly Arg Phe Thr Phe Ser Leu Asp Thr Ser Lys Ser Thr Ala Tyr
202 65          70          75          80
204 ctc caa atg aat agc ctg aga gca gag gac acc gca gtg tac tat tgt 288
205 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
206          85          90          95

```

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Output Set: N:\CRF4\11012004\J728420B.raw

```

208 gct aga gga tac aga tct tat gcc atg gac tac tgg ggc cag ggt acc 336
209 Ala Arg Gly Tyr Arg Ser Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr
210                100                105                110
212 cta gtc aca gtc tcc tca 354
213 Leu Val Thr Val Ser Ser
214                115
217 <210> SEQ ID NO: 12
219 <400> SEQUENCE: 12
W--> 220 000
223 <210> SEQ ID NO: 13
225 <400> SEQUENCE: 13
W--> 226 000
229 <210> SEQ ID NO: 14
231 <400> SEQUENCE: 14
W--> 232 000
235 <210> SEQ ID NO: 15
237 <400> SEQUENCE: 15
W--> 238 000
241 <210> SEQ ID NO: 16
243 <400> SEQUENCE: 16
W--> 244 000
247 <210> SEQ ID NO: 17
249 <400> SEQUENCE: 17
W--> 250 000
253 <210> SEQ ID NO: 18
255 <400> SEQUENCE: 18
W--> 256 000
259 <210> SEQ ID NO: 19
261 <400> SEQUENCE: 19
W--> 262 000
265 <210> SEQ ID NO: 20
267 <400> SEQUENCE: 20
W--> 268 000
271 <210> SEQ ID NO: 21
273 <400> SEQUENCE: 21
W--> 274 000
277 <210> SEQ ID NO: 22
279 <400> SEQUENCE: 22
W--> 280 000
283 <210> SEQ ID NO: 23
285 <400> SEQUENCE: 23
W--> 286 000
289 <210> SEQ ID NO: 24
291 <400> SEQUENCE: 24
W--> 292 000
295 <210> SEQ ID NO: 25
297 <400> SEQUENCE: 25
W--> 298 000
301 <210> SEQ ID NO: 26

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## RAW SEQUENCE LISTING

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Input Set : D:\Sequence Listing 015181-1 US rev 09-14-04.txt

Output Set: N:\CRF4\11012004\J728420B.raw

303 <400> SEQUENCE: 26  
W--> 304 000  
307 <210> SEQ ID NO: 27  
309 <400> SEQUENCE: 27  
W--> 310 000  
313 <210> SEQ ID NO: 28  
315 <400> SEQUENCE: 28  
W--> 316 000  
319 <210> SEQ ID NO: 29  
321 <400> SEQUENCE: 29  
W--> 322 000  
325 <210> SEQ ID NO: 30  
327 <400> SEQUENCE: 30  
W--> 328 000  
331 <210> SEQ ID NO: 31  
333 <400> SEQUENCE: 31  
W--> 334 000  
337 <210> SEQ ID NO: 32  
339 <400> SEQUENCE: 32  
W--> 340 000  
343 <210> SEQ ID NO: 33  
345 <400> SEQUENCE: 33  
W--> 346 000  
349 <210> SEQ ID NO: 34  
351 <400> SEQUENCE: 34  
W--> 352 000  
355 <210> SEQ ID NO: 35  
357 <400> SEQUENCE: 35  
W--> 358 000  
361 <210> SEQ ID NO: 36  
363 <400> SEQUENCE: 36  
W--> 364 000  
367 <210> SEQ ID NO: 37  
369 <400> SEQUENCE: 37  
W--> 370 000  
373 <210> SEQ ID NO: 38  
375 <400> SEQUENCE: 38  
W--> 376 000  
379 <210> SEQ ID NO: 39  
381 <400> SEQUENCE: 39  
W--> 382 000  
385 <210> SEQ ID NO: 40  
387 <400> SEQUENCE: 40  
W--> 388 000  
391 <210> SEQ ID NO: 41  
393 <400> SEQUENCE: 41  
W--> 394 000  
397 <210> SEQ ID NO: 42  
399 <400> SEQUENCE: 42

## VERIFICATION SUMMARY

PATENT APPLICATION: US/10/728,420B

DATE: 11/01/2004

TIME: 12:15:42

Input Set : D:\Sequence Listing 015181-1 US rev 09-14-04.txt

Output Set: N:\CRF4\11012004\J728420B.raw

L:164 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (9) SEQUENCE:  
L:170 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:  
L:220 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE:  
L:226 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (13) SEQUENCE:  
L:232 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (14) SEQUENCE:  
L:238 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (15) SEQUENCE:  
L:244 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (16) SEQUENCE:  
L:250 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (17) SEQUENCE:  
L:256 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (18) SEQUENCE:  
L:262 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (19) SEQUENCE:  
L:268 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (20) SEQUENCE:  
L:274 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (21) SEQUENCE:  
L:280 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (22) SEQUENCE:  
L:286 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (23) SEQUENCE:  
L:292 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (24) SEQUENCE:  
L:298 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (25) SEQUENCE:  
L:304 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (26) SEQUENCE:  
L:310 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (27) SEQUENCE:  
L:316 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (28) SEQUENCE:  
L:322 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (29) SEQUENCE:  
L:328 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (30) SEQUENCE:  
L:334 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (31) SEQUENCE:  
L:340 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (32) SEQUENCE:  
L:346 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (33) SEQUENCE:  
L:352 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (34) SEQUENCE:  
L:358 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (35) SEQUENCE:  
L:364 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (36) SEQUENCE:  
L:370 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (37) SEQUENCE:  
L:376 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (38) SEQUENCE:  
L:382 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (39) SEQUENCE:  
L:388 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (40) SEQUENCE:  
L:394 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (41) SEQUENCE:  
L:400 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (42) SEQUENCE:  
L:406 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (43) SEQUENCE:  
L:412 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (44) SEQUENCE:  
L:418 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (45) SEQUENCE:  
L:424 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (46) SEQUENCE:  
L:430 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (47) SEQUENCE:  
L:436 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (48) SEQUENCE:  
L:442 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (49) SEQUENCE:  
L:448 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (50) SEQUENCE:  
L:454 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (51) SEQUENCE:  
L:460 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (52) SEQUENCE:  
L:466 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (53) SEQUENCE:  
L:472 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (54) SEQUENCE:  
L:478 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (55) SEQUENCE:  
L:484 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (56) SEQUENCE:  
L:490 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (57) SEQUENCE:

## VERIFICATION SUMMARY

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Input Set : D:\Sequence Listing 015181-1 US rev 09-14-04.txt

Output Set: N:\CRF4\11012004\J728420B.raw

L:496 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (58) SEQUENCE:  
L:502 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (59) SEQUENCE:  
L:508 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (60) SEQUENCE:  
L:514 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (61) SEQUENCE:  
L:520 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (62) SEQUENCE:  
L:526 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (63) SEQUENCE:  
L:532 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (64) SEQUENCE:  
L:538 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (65) SEQUENCE:  
L:544 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (66) SEQUENCE:  
L:550 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (67) SEQUENCE:  
L:556 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (68) SEQUENCE:  
L:562 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (69) SEQUENCE:  
L:568 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (70) SEQUENCE:  
L:574 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (71) SEQUENCE:  
L:580 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (72) SEQUENCE:  
L:586 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (73) SEQUENCE:  
L:592 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (74) SEQUENCE:  
L:598 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (75) SEQUENCE:  
L:604 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (76) SEQUENCE:  
L:610 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (77) SEQUENCE:  
L:616 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (78) SEQUENCE:  
L:622 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (79) SEQUENCE:  
L:628 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (80) SEQUENCE:  
L:634 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (81) SEQUENCE:  
L:640 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (82) SEQUENCE:  
L:1127 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (110) SEQUENCE:  
L:1133 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (111) SEQUENCE:  
L:1139 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (112) SEQUENCE:  
L:1184 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (114) SEQUENCE: